

**S**YSTEM **P**LANNING & **A**NALYSIS **R**eport

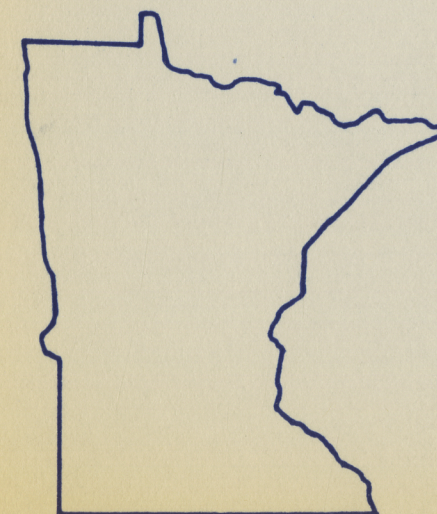
**S-101**

T.H. 51  
MARSHALL AVENUE  
TO T.H. 36

S.P. 6215, 6216

MAY, 1972

PREPARED BY  
**OFFICE OF SYSTEM PLANNING**



**MINNESOTA  
DEPARTMENT  
OF HIGHWAYS**



DEPARTMENT HIGHWAY - Statewide Planning -  
Room 807 - Extension 3158

# Office Memorandum

TO : Paul G. Velz  
Road Design Engineer

DATE: June 6, 1972

FROM : Morris Gildemeister, Chief  
Statewide Planning Section

SUBJECT: T.H. 51 from Marshall Avenue to T.H. 36  
S.P. 6215, 6216  
System Planning and Analysis Report S-101

R. D. McAtee requested this report for R. T. Peterson on March 9, 1972.

The subject project is delineated on Page 2.

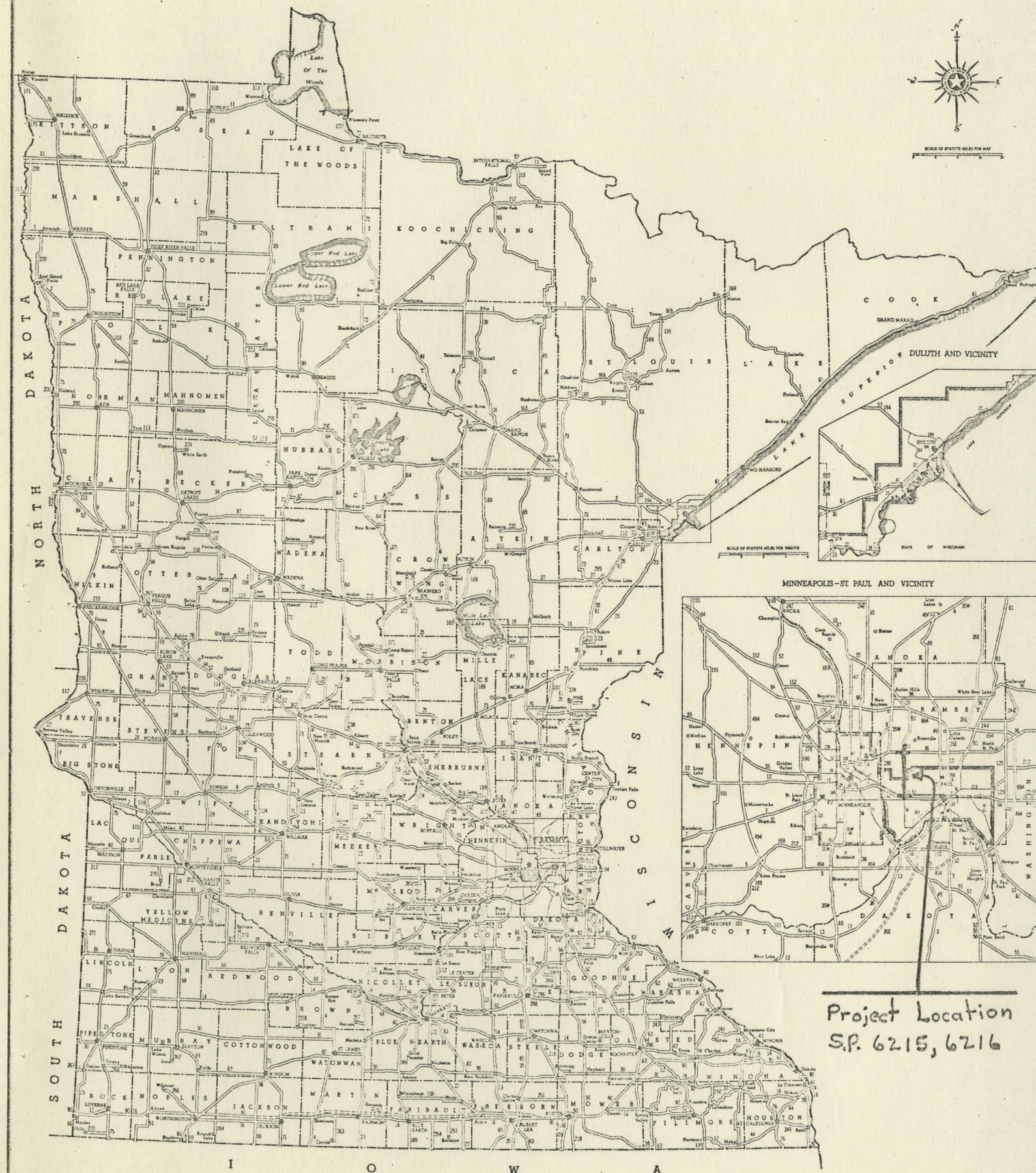
The requested vehicle type distributions, tabulated on Pages 3 through 9, are indexed to the segment numbers of the Page 11 map and their preparation is described on Page 10.

*Morris Gildemeister*

Morris Gildemeister, Chief  
Statewide Planning Section

MOH

## STATE OF MINNESOTA DEPARTMENT OF HIGHWAYS WORK MAP





TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 1 OF 7

FOR

T.H. 51 S.P. 6215, 6216 LENGTH ---- MILES  
COUNTY Ramsey LOCATION Marshall Avenue to T.H. 36

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 1 THROUGH 11 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	1	2	3	4	5	6	7	8	9	10	11
0	32568	583	1263	78280	7756	61824	7101	76126	37070	33826	30298
1	844	10	22	2808	396	2412	204	2820	928	844	1150
2	132	2	3	976	60	916	35	986	144	130	340
3	68	-	-	274	26	248	16	280	82	78	148
4	106	-	1	420	46	374	24	422	118	112	186
5	472	3	6	2806	214	2592	114	2820	520	504	454
6	310	2	5	836	102	734	56	846	338	306	424
TOTAL ADT	34500	600	1300	86400	8600	69200	7550	84300	39200	35800	33000
TOTAL H. COMM. ADT	1932	17	37	8120	844	7376	449	8174	2130	1974	2702
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

\* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS  
1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
2 = SINGLE UNIT-3 AXLE TRUCKS  
3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
6 = BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 2 OF 7

FOR

T.H. 51 S.P. 6215, 6216 LENGTH ---- MILES  
COUNTY Ramsey LOCATION Marshall Avenue to T.H. 36

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 12 THROUGH 22 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	12	13	14	15	16	17	18	19	20	21	22
0	26362	30244	4680	5214	30515	7796	7004	31936	952	2839	33445
1	1030	746	154	178	730	150	210	790	18	85	826
2	324	111	33	44	97	53	47	106	6	19	112
3	132	64	17	22	62	27	11	81	3	5	85
4	166	92	20	24	87	33	27	97	4	11	102
5	346	418	44	48	386	57	36	426	7	15	450
6	440	325	52	70	323	84	65	364	10	26	380
TOTAL ADT	28800	32000	5000	5600	32200	8200	7400	33800	1000	3000	35400
TOTAL H. COMM. ADT	2438	1756	320	386	1685	404	396	1864	48	161	1955
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

\* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS  
1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
2 = SINGLE UNIT-3 AXLE TRUCKS  
3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
6 = BUSES AND TRUCKS WITH TRAILERS



## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 3 OF 7

FOR

T.H. 51 S.P. 6215, 6216 LENGTH ----- MILESCOUNTY Ramsey LOCATION Marshall Avenue to T.H. 36

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 23 THROUGH 33 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	23	24	25	26	27	28	29	30	31	32	33
0	4293	808	3273	7559	38175	6114	6722	1847	1243	39383	4334
1	126	21	93	220	970	238	276	74	51	1016	108
2	49	7	36	86	170	78	96	26	17	188	40
3	16	-	12	29	109	24	30	8	5	115	11
4	23	2	17	41	132	38	50	12	10	136	18
5	69	8	51	122	536	84	94	25	18	550	49
6	24	4	18	43	408	24	32	8	6	412	40
TOTAL ADT	4600	850	3400	8100	40500	6600	7300	2000	1350	41800	4600
TOTAL H. COMM. ADT	307	42	227	541	2325	486	578	153	107	2417	266
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS      4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS      5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
 2 = SINGLE UNIT-3 AXLE TRUCKS              6 = BUSES AND TRUCKS WITH TRAILERS  
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES

## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 4 OF 7

FOR

T.H. 51 S.P. 6215, 6216 LENGTH ----- MILESCOUNTY Ramsey LOCATION Marshall Avenue to T.H. 36

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 34 THROUGH 44 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	34	35	36	37	38	39	40	41	42	43	44
0	28100	16336	4760	40235	4220	8694	1123	3230	40715	5900	18193
1	710	392	125	1050	92	206	27	64	1062	158	566
2	302	158	61	230	24	26	15	30	233	30	86
3	82	42	14	121	11	10	6	10	121	22	52
4	152	88	24	148	18	20	10	19	148	26	64
5	312	178	62	576	26	32	16	31	576	66	163
6	342	206	54	440	9	12	3	16	445	98	76
TOTAL ADT	30000	17400	5100	42800	4400	9000	1200	3400	43300	6300	19200
TOTAL H. COMM. ADT	1900	1064	340	2565	180	306	77	170	2585	400	1007
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS      4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS      5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
 2 = SINGLE UNIT-3 AXLE TRUCKS              6 = BUSES AND TRUCKS WITH TRAILERS  
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES



TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 5 OF 7

FOR

T.H. 51 S.P. 6215, 6216 LENGTH --- MILES  
COUNTY Ramsey LOCATION Marshall Avenue to T.H. 36

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 45 THROUGH 55 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	45	46	47	48	49	50	51	52	53	54	55
0	21915	1489	31893	5629	6965	15946	8381	5418	10528	8516	19044
1	670	32	810	125	155	405	250	98	307	154	461
2	92	6	185	31	38	92	54	13	79	20	99
3	63	2	81	18	22	41	19	8	33	12	45
4	79	4	104	23	28	52	24	13	39	20	59
5	202	12	468	50	62	234	172	29	205	45	250
6	179	5	259	24	30	130	100	21	109	33	142
TOTAL ADT	23200	1550	33800	5900	7300	16900	9000	5600	11300	8800	20100
TOTAL H. COMM. ADT	1285	61	1907	271	335	954	619	182	772	284	1056
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

\* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS  
1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
2 = SINGLE UNIT-3 AXLE TRUCKS  
3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
5 = TRACTOR-TRUCK OR SEM-TRAILER - 5 AXLES  
6 = BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 6 OF 7

FOR

T.H. 51 S.P. 6215, 6216 LENGTH ---- MILES  
COUNTY Ramsey LOCATION Marshall Avenue to T.H. 36

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 56 THROUGH 66 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	56	57	58	59	60	61	62	63	64	65	66
0	7565	11479	7842	3637	4553	3233	3085	67623	66640	34344	7291
1	155	306	244	62	104	74	76	1490	1522	890	182
2	38	61	44	17	27	14	26	480	484	190	26
3	22	23	14	9	11	8	14	212	218	94	8
4	28	31	21	10	16	11	27	533	538	142	21
5	62	188	142	46	64	44	56	1218	1244	480	42
6	30	112	93	19	25	16	16	344	354	260	27
TOTAL ADT	7900	12200	8400	3800	4800	3400	3300	71900	71000	36400	7600
TOTAL H. COMM. ADT	335	721	558	163	247	167	215	4277	4360	2056	306
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

\* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS  
1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
2 = SINGLE UNIT-3 AXLE TRUCKS  
3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
5 = TRACTOR-TRUCK OR SEM-TRAILER - 5 AXLES  
6 = BUSES AND TRUCKS WITH TRAILERS



TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 7 OF 7

FOR

T.H. 51 S.P. 6215, 6216 LENGTH --- MILES

COUNTY Ramsey LOCATION Marshall Avenue to T.H. 36

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 67 THROUGH --- AS

DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	67										
0	23482										
1	546										
2	78										
3	24										
4	63										
5	126										
6	81										
TOTAL ADT	24400										
TOTAL H. COMM. ADT	918										
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

\* VEHICLE TYPE CODE

- 0= PASSENGER CARS AND 4 TIRE TRUCKS
- 1= SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
- 2= SINGLE UNIT-3 AXLE TRUCKS
- 3= TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4= TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
- 5= TRACTOR-TRUCK OR SEM-TRAILER - 5 AXLES
- 6= BUSES AND TRUCKS WITH TRAILERS

Narrative of Report Preparation

Five previous reports of vehicle type distributions, attendant to 5 reports of ADT, have been issued for all or part of the studied route. Indexed to the segment numbers of the attached Page 11 map, they are:

Segments	Report No.	Date of Report	ADT in Report	Source of System 14 ADT
55-65	TAS 3081A-14	8/29/68	1990	TAS 572-14
1-67	TAS 3083-14	9/ 5/68	1990	TAS 553-14
32-50	TAS 3083A-14	6/26/69	1990	TAS 651-14
1-27	S-33	12/17/70	1990	M-25
1-27	S-45	3/26/71	1985	M-31

The 1990 ADT in the current report is the same as that in M-100A which was transmitted on April 25, 1972 to reflect a revised assignment of System 14 ADT to the Har-Mar and Target areas at the north end of the project.

Allowances were made for the expected vehicle type distributions in the increased 1990 ADT shown to Har-Mar and Target in M-100A and also for the ADT by vehicle type and reasons for publishing the 5 earlier reports.

The resulting combinations of new and old data resulted in the currently reported data on Pages 3 through 9.